

Stucky (J. A.)

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PRURITIC CATARRH

OR

HAY FEVER.

ITS TREATMENT.

BY

J. A. STUCKY, M. D.

*Surgeon to St. Joseph's Hospital; Member Kentucky State Medical Society; Vice
President American Rhinological Association.*

Read before the American Rhinological Association, Oct., 1884, and
Published in Dr. Humboldt's Work on PRURITIC RHINITIS (*Hay-Fever*).

Reprinted from the St. Louis Medical and Surgical Journal, June, 1885.



ST. LOUIS:
MEDICAL JOURNAL PUBLISHING COMPANY.
2622 Washington Avenue.
1885.

ERRATA.

| PAGE. | LINE. | WORD. | CORRECT. |
|-------|-------|-------------------------------------|--|
| 4 | 24 | PAROXISMS. | <i>Paroxysms.</i> |
| 5 | 5 | Principle. | <i>Principal.</i> |
| 5 | 23 | { that by completely } closing } | { <i>the complete</i> } { <i>closing of</i> } |
| 5 | 18 | Paroxisms | <i>Paroxysms.</i> |
| 5 | 24 | Antrum. | <i>Antrum.</i> |
| 6 | 12 | Extremely. | <i>Extremity.</i> |
| 6 | 30 | Naso. | <i>Vaso</i> |
| 6 | 36 | Sneiderian. | <i>Schneiderian.</i> |
| 7 | 27 | Attach. | <i>Attack</i> |
| 7 | 35 | Dram. | <i>Drachm.</i> |
| 8 | 10 | Firms. | <i>Forms</i> |
| 8 | 11 | Hypertrophic. | <i>Atrophic.</i> |
| 8 | 11 | Other. | <i>Others.</i> |
| 8 | 28 | Formary. | <i>Primary.</i> |
| 8 | 38 | Accomplish. | <i>Accomplished.</i> |
| 9 | 2 | Hæmorrhage. | <i>Hemorrhage.</i> |
| 9 | 32 | Extremely. | <i>Extremity.</i> |
| 10 | 20 | Thought. | <i>Through.</i> |
| 11 | 9 | Suggestd. | <i>Suggested.</i> |
| 11 | 15 | Drahm | <i>Drachm.</i> |
| 11 | 15 | Teaspoonful. | <i>Teaspoonful.</i> |

The fourth and fifth lines in the second paragraph on page 11 should read, corrected "2 grs. of Hypophosphite of Lime, 1 gr. of Hypophosphite of Soda, 1 gr. of Phosphate of Iron with 1.32 gr. of Strychniæ.

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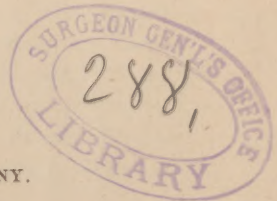
J. A. STUCKY, M. D.

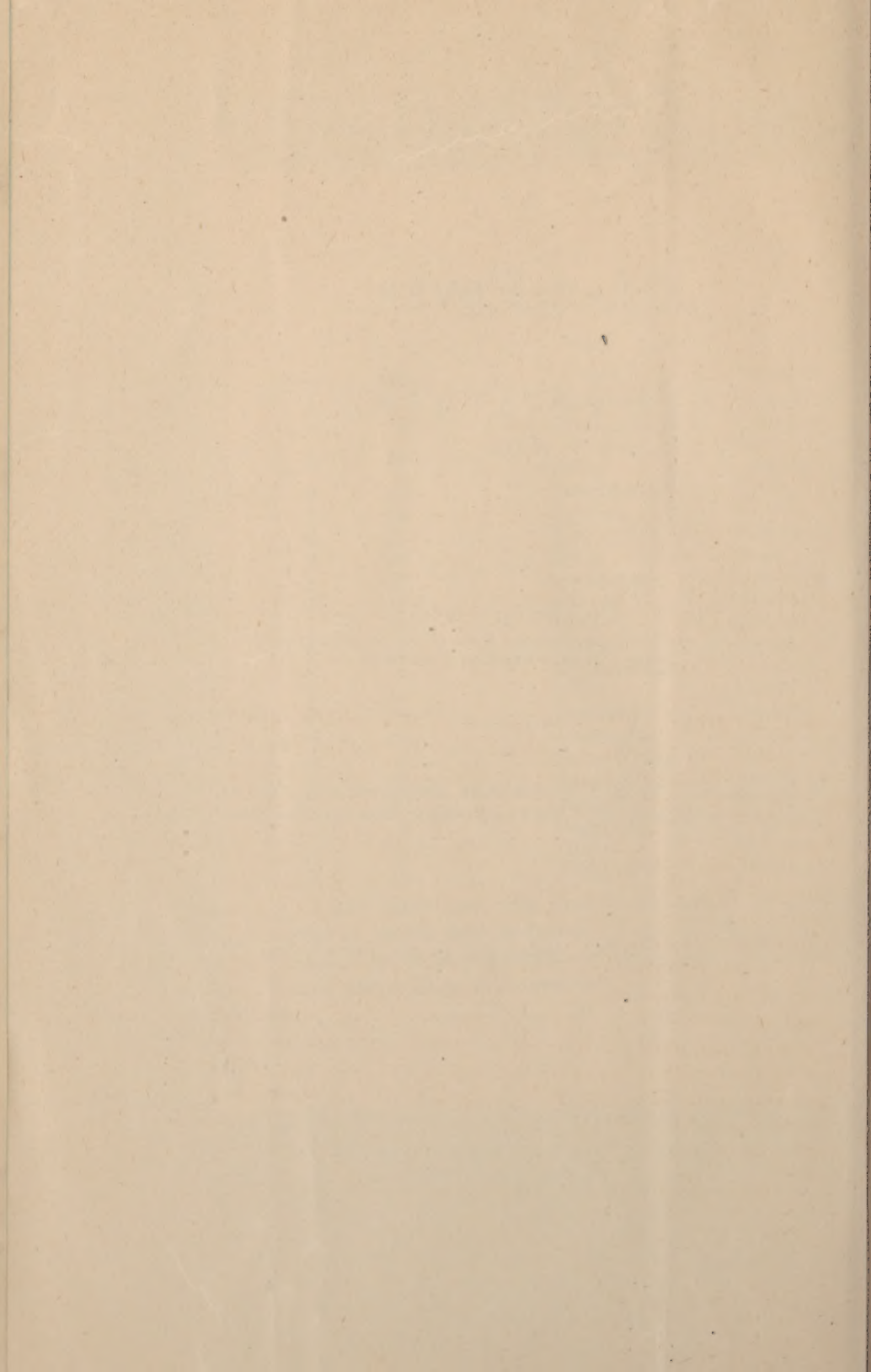
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PRURITIC CATARRH OR HAY-FEVER.

ITS TREATMENT.

By J. A. STUCKY, M. D., Lexington, Ky., Surgeon to St. Joseph's
Hospital, Member Ky. State Medical Society, Vice
President AMERICAN RHINOLOGICAL ASSO-
CIATION, etc.

In calling your attention to the subject of Pruritic Catarrh or so-called Hay-Fever, I am not unmindful of the fact that I am but adding to an already over filled list of contributors to the literature of this subject.

The many conflicting theories as to the etiology and pathology of this disease, stimulates me to contribute my mite. Probably no disease of the superior respiratory tract causes more suffering than so-called Hay-Fever. I shall not enter into a detailed description of the symptoms, etiology or pathology of the disease but am led to offer a few suggestions as to the treatment, because of results obtained. In the beginning, I desire to enter a protest against the term "hay-fever" and all other names of

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similar nature, giving as a reason, that the terms used to designate the disease in question are meaningless, hence not entitled to the respect they now have. You are doubtless aware of the fact that I am not alone in taking this view but am simply following in the wake of Dr. T. F. Rumbold and joining with him in the plea for a name more expressive, appropriate and descriptive of the disease.

If the odor of hay, roses, etc., were the only known causes of this disease, we would be satisfied with the time honored names *hay-fever*, *rose-cold* etc., because they would indicate its nature.

In a recent article on this Subject Dr. Rumbold says: "If the name indicate that a certain prominent fact or feature of a disease is constantly present so as to distinguish it from other diseases, where such *is not* the case, then most certainly the misleading name should be discarded; as its retention will be very liable to lead to an erroneous diagnosis, and thus a case might be excluded from its proper class, and, as a consequence, be improperly treated". Dr. G. M. Beard, a leading authority, "Admits the substantial identity of Autumnal Catarrh and June Cold, etc."

The inappropriateness or rather insufficiency of the term hay-fever is now quite generally admitted; for even where the predisposition exists, hay of any kind, fresh or dried, acts as an exciting cause in but a minority of cases and rarely, if ever, is it the only irritant that gives rise to the paroxysms. Yet the phenomena of the disease are alike in all cases whether they occur in the Spring, Summer, Fall or Winter.

Without discussing this part of the subject at any greater length, I accept the name, suggested by Dr. Rumbold, as being the *most* appropriate because most descriptive of the disease.

I quote at length from a recent article by him.

"Pruritic Rhinitis or Itching Nasal Catarrh, is the name selected for this, as yet unexplained, phenomenon. This name is descriptive of its most prominent characteristics namely: *itching*, *inflammation* and *flow of mucous*. The attack is ushered in by an itching of the nose and face; this soon affects the eyes, causing intense suffering. The itching sensation in the nostrils gives rise to prolonged sneezing, this in turn makes the eyes worse; the itching soon reaches the soft palate and fauces, and to relieve these parts of the same sensation, the tongue is used to rub them. As the tickling is not relieved, a rasping cough is tried which is so persistently continued that the throat soon becomes sore, and,

in older sufferers, shortness of breathing ensues, and symptoms of asthma are developed."

"Because of the uniformity of this symptom—*itching*—and the fact that it is always accompanied by inflammation, the name suggested indicates the *first*, the *principle* and most *prominent* symptom, which is characteristic of the malady at whatever season of the year the victim is attacked, and it is by no means misleading". I have already referred to the numerous causes (?) of this disease, which I shall hereafter designate as *Pruritic Catarrh*.

It matters not what the exciting cause may be, whether pollen of hay, parasites—animal or vegetable—bacilli, odor of rose, inhalation of dust, or what not, the one fact I have been able to demonstrate in every case I have seen, is this, that the disease is preceded by a nasal catarrh, and relief of the catarrh was relief of the "hay-fever." In every case examined by me, I have found the middle and inferior turbinated bone covered with hypertrophied mucous membrane; and during a paroxysm the nasal cavities were completely closed by a swollen membrane, giving rise to the uncomfortable feeling and frequently excruciating pain in the eyes, cheek, frontal region, and in a few cases intense pain in the back of the head. A brief glance at the anatomy of the parts will easily convince us how that by completely closing the openings that lead from the antrum of Highmore, Frontal, Sphenoidal and Ethmoidal sinuses, as well as the lachrymal canal, will give rise to all of the symptoms referred to. In addition to closing of these cavities the inflammation extends into them in some cases, giving rise to alarming symptoms.

The membranous linings of these cavities is similar to that of the nasal fossæ. Whenever the nasal mucous membrane is in an active state of inflammation, which is attended with a great degree of swelling the communication with the cavities mentioned must be shut off, and the accumulating fluids press against their boundaries, and as the pressure increases the pain becomes more intense. This pain ceases as soon as the imprisoned fluid finds an exit through its natural passage.

American Journal of the Medical Sciences. July, '83 Dr. MacKenzie, of Baltimore, Md., says:

(1.) "That in the nose there exists a well defined, sensitive area, whose stimulation, either through a local pathological process, or through the action of an irritant introduced from with-

out, is capable of producing an excitation which finds its expression in a reflex act, or in a series of reflected phenomena.

(2.) That this sensitive area corresponds, in all probability, with that portion of nasal mucous membrane which covers the turbinated corpora cavernosa.

(3.) That reflex cough (or asthma) is produced only by stimulation of this area, and is only exceptionally evoked when the irritant is applied to other portions of the nasal chamber.

(4.) That all parts of this area are ^{not} equally capable of generating the reflex act, the most sensitive spot being probably represented by that portion of the *membrane* which clothes the posterior extremity of the inferior turbinated body and that of the septum immediately opposite.

(5.) That the tendency to *reflex action varies in different individuals*, and is dependant upon the varying degree of *excitability* of the erectile tissue. In some the slightest touch is sufficient to excite it, in others chronic hyperæmia or hypertrophy of the cavernous bodies seems to evoke it by constant irritation of the reflex centres, as occurs in similar conditions of other erectile organs, as, for example, the clitoris.

(6.) That this exaggerated or disordered functional activity of the area may possibly throw some light on the physiological destiny of the erectile bodies. Among other properties which they possess, may they not act as sentinels to guard the lower air passages and pharynx against the entrance of foreign bodies, noxious inhalations, and other injurious agents, to which they might otherwise be exposed?"

The physiological phenomena referred to by the author, are "to be found in the doctrine of correlated areas, the reflex taking place through the naso-dilator nerves from the superior cervical ganglion of the sympathetic."

In the beginning of an attack of Pruritic Catarrh the first symptom is intense itching of the nose accompanied by sneezing. Gradually the nasal fossæ fill up, until nasal respiration is entirely prevented. When the disease has reached the point of occluding the nares, by infiltration and inflammation of the Sneiderian membrane, then the frontal and occipital *ache*, with pain in the cheeks, accompanied by alternate chilliness and heat and a feeling of general discomfort with loss of appetite, pyrexia and general malaise. Frequently do we meet with cases of inflammation of the middle ear, that has extended through the eus-

tachian tube, following attacks of Pruritic Catarrh. I need not remind you that during a paroxysm, the senses of taste, smell and hearing are much impaired, and soon the sufferer becomes prostrated. I shall not consume any of your valuable time by giving a description of the symptoms, with the history of the cases I have treated. Will only say, that of all the cases I have recorded every one presented *all* or a *majority* of the prominent symptoms characteristic of the disease. In concluding this part of my subject I agree with Dr. Harrison Allen that there is "nothing peculiar to the disease, save its sharply defined periodicity, particularly in that phase of it where the periods of recurrence happen to coincide with the time of the fruitage of certain plants, or the gathering of certain crops."

I now ask your attention to a consideration of the method of treatment employed for this class of sufferers. If, as we have stated, the disease is due to a nasal catarrh, and the paroxysms—asthmatic—are brought on by an *irritant* of some kind, then the logical inference is, get rid of the catarrh and you get rid of the sequelæ, of which Pruritic Catarrh (hay-fever) is the most annoying—for where the soil is in a proper condition and seed sown, it sprouts spontaneously. "*Remove the cause, and cure the disease.*"

During a paroxysm our treatment is palliative only. That we can in every case palliate and cut short the aggravating symptoms I have no doubt. Experience has demonstrated this. The treatment employed by me is that used by Dr. Rumbold, with some modifications. If a patient presents himself during an attack I gently apply, by means of the spray, one half drachm of the following mixture.

| | | |
|---|--------------------------------|--------------|
| R | Acid Carbol..... | gr. j. |
| | Ol. Eucalyptol (Saunders)..... | M ij. |
| | Boric Acid..... | gr. x to xx. |
| | Glycerine..... | ʒj. |
| | Vaseline..... | ʒvij. |

One-half dram of this mixture is placed in the bowl of the spray tube, heated and applied by means of compressed air, gently and thoroughly to the entire pharyngo-nasal and post nasal cavity. The relief in a majority of cases is almost immediate. The spray tubes used in this treatment are those invented by Dr. Rumbold, and in them we have a perfect instrument for thoroughly cleansing and medicating the entire superior respiratory tract.

In a few cases it is necessary to omit the eucalyptol on account of its stimulating qualities, when this is necessary I use the same mixture with this exception. The properties of Boracic Acid need no eulogizing, they are well known, as antiseptic, slightly stimulating and soothing. Strong astringents or irritants of any kind not only do harm in this variety of nasal trouble *in the acute stage* but in all varieties. Our treatment should always be soothing, avoiding everything that irritates, this applies only to local medical treatment and not to the surgical.

I not only use Boracic Acid in this form of nasal trouble, but in other, principally the hypertrophic, in strength varying from 5 to 30 grs to the ounce, always using vaseline as the excipient and applying by means of spray. The application of this remedy in the manner suggested is made daily for a week, then twice a week until the disease is checked and symptoms disappear. Usually after the first or second treatment, patients express themselves as being relieved. This treatment suggested has given me excellent results in mild forms of this complaint in adults and still better results in treatment of children and persons under 25 years of age. The way in which the remedies relieve I suppose to be due to the fact that they remove, destroy or render inert the irritant that is imbedded in the mucous membrane, and by their soothing action reduce the inflammatory action and thus relieve the pent up secretions in the sinuses and cavities connected with the nasal organ.

I do not pretend to say what the exciting cause of this disease is, what causes it in one will not in another. The one fact I desire to emphasize is, the formary cause in every case is nasal catarrh. After relieving a case of the most prominent and distressing symptoms, and nasal respiration is thoroughly established, the inflammation and infiltration all gone, an examination with the rhinoscope (posteriorly) will reveal a mass—(varying in size from a small buck-shot to size of a hazel nut)—of hypertrophied tissues over the posterior extremity of the inferior or middle turbinated bone, more frequently the former.

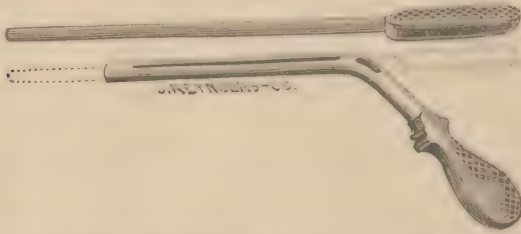
The treatment already suggested, I stated, was palliative, and I desire now to speak of the radical treatment, which consists in the removal of the hypertrophied tissue. This is accomplished by means of the Jarvis Snare or, more frequently and preferably, by Chromic Acid. In the use of this agent my experience coincides with that of Dr. F. Donaldson, of Baltimore Md., who says. "We

have found chromic acid a powerful escharotic, not causing pain or hemorrhage and, when cautiously used, perfectly under control.

Its action is that of a prompt solvent of organic matter. It rapidly oxidizes and decomposes the tissues. It loses one-half of its oxygen, and is itself converted into the inert sesquioxide. It is, at the same time, an antiseptic, and disinfectant. It appears, according to Wood and Bache, "to owe its antiseptic action to its power of coagulating albumen and all protean compounds, in which it has been found to exceed all the acids and metallic salts that have been tried, being ten times stronger than carbolic acid, fifteen times stronger than nitric acid, and twenty times stronger than bi-chloride of mercury. *It gives less pain than other caustics.* It is one of the most powerful destructive agents to inferior organic life, greatly exceeding carbolic acid in this respect. The method by which we apply the chromic acid (*paste* made by adding just enough water to render it semi-solid) is to first dry the parts with absorbent cotton wrapped around a nasal probe, this should be done very gently so as to not excite sneezing or cause pain? If the drying process cause either it should be discontinued. If the application is to be made to posterior extremity of turbinated bone, the instrument represented in Fig 3. is used. This is a modification of Dr. Andrew Smith's grooved catheter for cauterization of nasal mucous membrane by means of fuming nitric acid. This instrument is smaller and much easier introduced, the canula is flat and not round. Length of tube $6\frac{1}{2}$ centi.; flat inside; probe extent 2 centi.; length of handle $5\frac{8}{10}$ centi.; circum. of tube $1\frac{1}{2}$ centi.; length of probe $9\frac{1}{2}$ centi. There is no need for slot on top of tube as represented in the drawing. It will be noticed that the probe is 3 centi. longer than the tube or canula. The probe is passed through the tube and around its distal extremity a small piece of absorbent cotton is twisted and on one side, the side on which the application is to be made, the chromic acid paste is applied; the probe is then withdrawn into the tube; the tube is now oiled with vaseline and gently pushed into the nasal fossae through the space between the lower turbinated bone and the septum until the point reaches the hypertrophied mass to be destroyed. This can be ascertained by the touch or by posterior rhinoscopic examination. After reaching this point the tube is steadied by grasping the handle with thumb and forefinger and placing the little finger (of same hand) on lip or

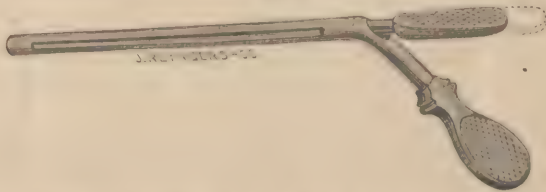
cheek of patient and with the other hand the probe is pushed through the tube, then by depressing and elevating, alternately, the handle the entire mass may be thoroughly touched with the cautery. After accomplishing this, the probe is again drawn into the tube, and the instrument withdrawn. The cavity is now to be sprayed with Dobell's or some Alkaline solution which relieves any pain caused by the application. By the use of this instrument we can avoid the touching of any part of the mucous membrane that we desire, the cautery being concealed our application can be limited or general.

Fig. 3.



Where the mucous membrane is hypertrophied and pendulous, over the entire inferior turbinated bone, the application is made

Fig. 4.



with instrument represented in Fig. 4, which is similar to Fig. 3. In this instrument the tube is closed at its distal end and has slot on side.

Length of tube $9\frac{1}{2}$ centi.; length of handle 6 centi.; circum of tube $1\frac{1}{2}$ centi.; length of slot $\frac{1}{2}$ mil.; length of probe 9 centi.

The tube is inserted into the nasal cavity with the slot to the side of the hypertrophy, the probe, covered with absorbent cotton and the chromic acid, is then pushed quickly through the tube and the application made to the entire lower surface of the inferior turbinated bone. "The affinity of the acid for organic matter is such that it acts immediately. There is no pain of consequence resulting, and no bleeding. After the first applica-

tion, our view of the remaining portion is not obscured by blood." Two or three applications is all that is necessary to remove the largest hypertrophy of mucous membrane that I have seen. I never apply the acid oftener than twice a week. After destruction of the membrane, it can be easily removed with small forceps or with loop of no. 5 piano wire attached to a probe. The after-treatment consists in making applications on alternate days of the Boric-acid-vaseline mixture before mentioned.

In addition to the treatment already suggested, a tonic is always given, the one generally employed by me, and with most gratifying results, is the Syr. of Hypophos. of Lime and Soda with Iron and Strychnine.

This preparation I have used largely for several years, and, as made by Mr. T. B. Wood, of Lexington, Ky., it has no equal, as a general tonic, that I know of. Each drachm (teaspoonful) contains 2 grs. each of Hypophosphite of Lime and Soda, 1 gr. of Phosphate of Iron and $\frac{1}{32}$ gr. of strychnine. A teaspoonful is given three times a day. For the itching and burning of the eyes, a Sol. of Boric Acid, 10 gr. to \mathfrak{z} j, is frequently used. For the rasping cough and headache, 5 gr. salicine, 3 gr. ammon. mur., $\frac{1}{4}$ gr. extr. belladonna, in capsule every 2 or 3 hours until relieved, has afforded good results. Sufferers from this disease are greatly annoyed by cold sweaty feet. Bathing the feet in salt water night and morning, rubbing them dry, and thoroughly applying vaseline, soon relieves this.

Since the preparation of this paper in Oct., 1884, the discovery of the magic effects of muriate of cocaine has somewhat changed my views of the treatment of Pruritic Catarrh. In the past three months I have had 5 cases of the most aggravated variety of this disease and have been able to give each one immediate relief by the use of a 4 per cent. Sol. of Cocaine. It was applied by means of absorbent cotton wrapped around a thin piece of whale bone, about 2 inches long, thoroughly saturated with the cocaine, gently inserted into the nostril. The first application was allowed to remain 8 or 10 minutes, when it was removed and a similar one made, using fresh cotton and cocaine. The second application was allowed to remain ten minutes longer. When it was removed and the entire *lower border* of the inferior turbinated bone, as well as the posterior surface of the inferior and middle turbinated bones, were thoroughly cauterized with Chromic Acid. Only one

nasal cavity was treated the same day. The after treatment has been the same. There has been no unpleasant result following this treatment, save a slight pain in the upper jaw and the eye of the side to which the application was made, which came on a few minutes after and lasted from a half to one and a half hours. With the use of cocaine I feel certain in promising my patients not only temporary relief, but destroy the hypertrophied tissue, in the acute stage, thus cutting short at once the disease. For several days after this operation there is a profuse discharge of mucous but no return of the annoying hay-fever (?) symptoms, if the offending tissue is thoroughly removed.

When this operation is performed during the acute stage, I always advise rest of both mind and body for several days and make the application of Boric-Acid-Vaseline with from 10 to 15 drops of the cocaine solution daily for a week.

I feel that I can endorse all the good that has been said of the local anæsthetic properties of cocaine. In an extended use of it in the nose and throat it has, in my hands, accomplished all that could be desired and with it we can now accomplish, what—a few months ago—would have taken weeks and months.

